In the Abstract

Please replace the Abstract as presented in the underlying International Application No. PCT/EP2003/009919, with the following amended Abstract:

ABSTRACT

~~The invention relates to a~~ A method for producing a connection area (4) on a work piece (1), in particular on a vehicle body plate which is to be positioned precisely with respect to a reference area (8) on the work piece (1). ~~For this purpose, a~~ A robot-guided processing tool (9) is used which is permanently connected to a sensor system (13) and forms a tool/sensor combination (16) with it. In a first step, the tool/sensor combination (16) is moved, within the scope of a positioning phase (II), from a proximity position (24) which is independent of the position of the work piece (1) in the working space (23) of the robot (11), into a preliminary position (18) in which the tool/sensor combination (16) is oriented precisely with respect to the reference area (8) of the work piece (1). ~~In order to~~ To move to the preliminary position (18), an iterative closed-loop control process is run through, in the course of which firstly an (actual) measured value of the sensor system (13) is generated and ~~said measured value is~~ compared with a (setpoint) measured value generated within the scope of a setup phase. A movement vector of the tool/sensor combination (16) is calculated from the difference between the (actual) measured value and (setpoint) measured value using a Jacobi matrix which is calculated within the scope of the setup phase, and the tool/sensor combination (16) is moved by an amount equal to this movement vector. ~~In order to~~ To carry out this positioning task it is possible to dispense with a metric calibration of the tool/sensor combination (16).

~~(Figure 2)~~